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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,376	03/26/2004	Olav Lysne	1380-0191PUS2	7638

2292 7590 02/02/2009
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EXAMINER

PATEL, CHANDRAHAS B

ART UNIT	PAPER NUMBER
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2416

NOTIFICATION DATE	DELIVERY MODE
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02/02/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/809,376	Applicant(s) LYSNE ET AL.	
	Examiner Chandrabhas Patel	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/8/2008 have been fully considered. Applicant argues that amended features of claims are not taught by the references. These features are discussed below in the office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant's original submitted specification does not describe how altering of network routes can be done without dropping data packets. This amended feature raises the issue of new matter since original submitted specification does not describe such a feature. Applicant points to Fig. 6 for describing such a feature. However, Fig. 6 does not have any steps that change the route of packets without dropping the packets.

Claim Rejections - 35 USC § 102

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-6, 8-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Khosravi et al. (USPN 7,200,146).

Regarding claim 1, Khosravi teaches a method for altering of a network routing in a network with flow control on the link level without dropping data packets, the altering of the network routing is the transition from a first routing function R_{old} , defining an established connection between a pluralities of communication input ports I_1, \dots, I_n and output ports O_1, \dots, O_m , in a network element, to a second routing function R_{new} , defining a new connection between the input and output ports, wherein the transition is executed by the network element for transmitting and receiving data packets [**Col. 8, lines 31-33, Fig. 6, alters routing table to change connections between input and outputs**], the method comprising: (1) for each input port I_i , performing the following steps: (1a) applying the first routing function R_{old} for the input port [**Col. 7, lines 53-55, applies a switch label for the egress port**], (1b) receiving a token on an input port I_i [**Col. 8, lines 16-18, update message is the token**], (1c) stopping forwarding data packets from port I_i arriving after the token [**Col. 9, Table 2, if egress port is not present in FE next egress port will be allocated to forward packets thus stopping data packet coming from that port**], (1d) applying the second routing function R_{new} for the input port I_i [**Col. 8, lines 34-38, in response to new switch-label**], (1e) starting forwarding data packets to every Output port O_j associated with the input port I_i according to the second routing function R_{new} , provided that the output port O_j has transmitted the token [**Col. 9, lines 39-44, transfers data packet in accordance with routing functions and correspondence between plurality of input and output ports**], (2) for each output port O_j , performing the following steps; (2a) determining if the token has been received on all input ports associated with the output port O_j according to

the first routing function R_{old} [**Fig. 8, Col. 9, lines 31-44, determines and applies switch label that identifies egress port for appropriate input port**], (2b) transmitting the token on the output port O_j when the token has been received on all the associated input ports I_i [**Fig. 9, Col. 9, lines 51-56, transmits switch label to egress ports**].

Regarding claim 2, Khosravi teaches the network element is a switch [**Fig. 10, 1025**].

Regarding claim 3, Khosravi teaches the token is included in a data packet [**Col. 8, lines 19-23, message generated by routers are in a data packet**].

Regarding claim 4, Khosravi teaches the method is applied to deterministic routing functions [**Col. 8, lines 17-19**].

Regarding claim 5, Khosravi the method is applied to adaptive routing functions [**Col. 8, lines 23-28, OSPF is adaptive routing function as routes can change depending on available shortest path**].

Regarding claim 6, Khosravi teaches the method is applied to source routing [**Col. 8, lines 7-12, applicant describes source routing as per packet routing which is taught by reference**].

Regarding claim 8, Khosravi teaches the method is applied to only parts of a complete network [**Col. 8, lines 39-41**].

Regarding claim 9, Khosravi teaches a network element [**Fig. 10, 1010**], comprising a plurality of output ports for transmitting data packets to other network elements in a network [**Fig. 10, Ports 1-6**], a plurality of input ports for receiving data packets from other network elements in the network [**Fig. 10, Ports 1-6**], a processing device [**Fig. 10, 1025**], a memory,

characterized in that the processing device is arranged to perform a method claim 1 [**Col. 11, lines 9-13**].

Regarding claim 10, Khosravi teaches routing functions are implemented as table stored in memory [**Fig. 10, 1027**].

Regarding claim 11, Khosravi teaches memory comprises computer program instructions arranged to perform the method when executed by the processing device [**Col. 11, lines 9-13**].

Regarding claim 12, Khosravi teaches a computer network system, comprising a number of network elements according to claim 9 [**Fig. 10**].

Regarding claim 13, Khosravi teaches a computer program, embodied on a storage medium or in a memory [**Col. 10, lines 11-15**], for execution by a processing device in a network element [**Col. 11, lines 9-13**], characterized in that the program comprises a set of instructions arranged to perform a method according to claim 1 when executed by the processing device in the network element [**Col. 11, lines 14-19**].

Claim Rejections - 35 USC § 103

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Khosravi et al. (USPN 7,200,146) in view of Opreescu (USPN 5,784,557).

Regarding claim 7, Khosravi teaches a method as discussed in rejection of claim 5.

However, Khosravi does not teach reducing the cyclic dependency graph to non-cyclic graph.

Opreescu teaches reducing the cyclic dependency graph to non-cyclic graph [**Abstract**].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to reduce the cyclic dependency graph to non-cyclic graph so that a direction for the data packet can be established [Col. 6, lines 44-48].

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandrahas Patel whose telephone number is (571)270-1211. The examiner can normally be reached on Monday through Thursday 7:30 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit
2416

/Chandrahas Patel/
Examiner, Art Unit 2416